

REMARKS

This application has been reviewed in light of the Office Action dated January 29, 2004. Claims 7, 8, 10, 12, and 13 are presented for examination, of which Claims 7 and 12 are in independent form. Allowable Claim 9 has been canceled, and its recitation incorporated into base Claim 7. Claim 12 has been amended to define still more clearly what Applicants regard as their invention. Favorable reconsideration is requested.

Applicants note with appreciation the indication that Claim 9 would be allowable if rewritten so as not to depend from a rejected claim, and with no change in scope. As noted above, Claim 9 has been canceled and its recitation incorporated into base Claim 7. Accordingly, Applicants submit that Claim 7 is now in condition for allowance.

Of the other claims now in this application, Claims 8 and 10 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,339,214 (*Takakura et al.*) in view of U.S. Patent No. 6,330,084 (*Chiang*), and Claims 12 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chiang*.

Applicants have amended independent Claim 12 in terms that more clearly define what they regard as their invention. Applicants submit that this amended independent claim, together with Claim 13, are patentably distinct from the cited prior art for at least the following reasons.

The aspect of the present invention set forth in Claim 12 is an image reading apparatus that includes a scanning member, a drive source, a frame member, and an interface connector. The scanning member is movable along an original mounting table, that includes a reading element for reading an original image. The scanning member has a frame. The drive source drives the scanning member, and the frame member houses the

scanning member. The interface connector connects to a signal line of an external apparatus and is mounted on an inside side surface of the frame member, where the inside side surface of the frame member is located at the end of a drive direction of the scanning member. The drive source is located at a side surface of the frame of the scanning member in such manner as to move together with the scanning member, and when the scanning member is positioned at the end of a driving movable range on the side at which the drive source and the interface connector are located, the drive source and the interface connector are positioned between the side surface of the frame member and the scanning member, where the drive source does not overlap with the interface connector in a direction perpendicular to the original mounting table surface.

Among other important features of Claim 12 is that the drive source is located at a side surface of the frame of the scanning member in such manner as to move together with the scanning member, and when the scanning member is positioned at the end of a driving movable range on the side at which the drive source and the interface connector are located, the drive source and the interface connector are positioned between the side surface of the frame member and the scanning member, where the drive source does not overlap with the interface connector in a direction perpendicular to the original mounting table surface. That is, an interface connector 61a is mounted on a control board 6, shown in Figure 1, and is located at the rear upper right side of the image reading device, shown in Figure 10. A motor 5 (drive source) is located on the right side of scanning member 1 and does not overlap the interface connector 61a when the scanning member 1

moves to the right side of the image reading apparatus.¹ Also there are no bulky parts at the left side of the scanning member 1, such that even if the scanning member 1 moves to the left side of the image reading apparatus there is no need for any additional housing space. Accordingly, the height of the apparatus can be suppressed and the size in the sub-scanning direction of the apparatus is also minimized.

Chiang relates to a flatbed scanner with a self-driven scanning module. As shown in Figure 2 of *Chiang*, a scanning module 18 is at the lower position of the figure. A control circuit 13 connected to a cable 11 is positioned under the scanning module 18 (relative to the positioning of the elements in the figure), and a motor is positioned above the scanning module 18. In the case when the scanning module is at the upper position (in the figure), a space between the housing 12 and the scanning module 18 is required for the motor 38. Thus, the size of the scanner, in the sub-scanning direction, becomes long because additional housing space is required at both ends of the flatbed scanner in the sub-scanning direction to accommodate the motor 38 and the control circuit 13. Nothing has been found in *Chiang* that would teach or suggest that the drive source is located at a side surface of the frame of the scanning member in such manner as to move together with the scanning member, and when the scanning member is positioned at the end of a driving movable range on the side at which the drive source and the interface connector are located, the drive source and the interface connector are positioned between the side surface of the frame member and the scanning member, where the drive source does not

¹/It is to be understood, of course, that the claim scope is not limited by the details of the described embodiments, which are referred to only to facilitate explanation.

overlap with the interface connector in a direction perpendicular to the original mounting table surface, as recited in Claim 12.

For at least the above reasons, Applicants submit that Claim 12 is patentable over *Chiang*.

The other claims in this application depend from one or the other of independent Claims 7 and 12, as discussed above, and, therefore, are submitted to be patentable for at least the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, individual reconsideration of the patentability of each claim on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York Office by telephone at (212) 218-2100. All correspondence should continue to be directed to our address listed below.

Respectfully submitted,


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